DRAMM—



Hydra[™] 200

Owners Manual

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Hydra 200™ Hydraulic Sprayer

5.5 HP Honda Gasoline Motor1.5 HP ElectricMotor
 Sarial Number

Limited Warranty

Dramm Corporation warrants, to the extent of the purchase price, that the Hydra 200TM will be free from defects in materials and workmanship to the original purchaser for a period of six months. Parts subject to wear are not covered under this limited warranty. Defects or damages due to the misuse, non-observance of safety standards, or non-observance of EPA chemical guidelines are not covered under this limited warranty. Please read and follow the instructions and heed warnings stated in the operating manual and on the Hydra 200TM.

The Honda Motor is covered by a 2 year warranty by Honda Motor Corp. A copy of this warranty is included in the enclosed Emission Control sheet in the motor manual.

Dramm Corporation makes no other further warranty, expressed or implied, and all other or further warranties, including any warranties of merchantability or fitness for a particular purpose are expressly excluded.

In no event shall the manufacturer(s) or Dramm Corporation be liable for loss of product, profit or any other special, incidental or consequential damages including, but not limited to, plant damage, property, or persons.

Dramm Corporation makes no warranty, expressed or implied, in regard to the efficacy of any pesticide or other chemical which may be applied using the Hydra Sprayer.

This warranty begins on the date of original purchase. This warranty is void if there is no proof of purchase or warranty registration on file. Mail the warranty registration card to the Dramm Corporation and keep the bill of sale or invoice. If warranty service is required, please include a written description of the equipment malfunction, a return address and telephone number. The Hydra 200™ must be thoroughly cleaned of all chemical residue and sent prepaid to:

Hydra Sprayer Service c/o Dramm Corporation 2000 North 18th Street Manitowoc, WI 54220

920.684.0227 information@dramm.com • www.dramm.com

NARNING

Hydra 200G

- road use or highway towing. Do not exceed 5 mph.
- Clean after every use with warm soapy water and then rinse with clean water.
- Wear protective clothing; respirator, hood, gloves and boots when mixing and spraying chemicals.
- Do not spray into the wind. Avoid the drift of solution sprays.
- Do not direct the spray or spray gun at yourself or anyone else.
- Be certain all hoses and connections are secure prior to using the Hydra.
- Avoid dry operation, since the spray solution acts as a pump lubrication.
- Relieve the before pressure removing the hoses or spray gun.

- This unit is not designed for over-the Apply all chemicals according to EPA Guidelines.
 - Store in a clean, dry location- away from children and unauthorized personnel.
 - Remove all hoses and drain the pump prior to storage.
 - Do not drag the hoses over sharp objects or bend excessively.
 - Repair or replace all damaged or broken hoses before using the Hydra 200.
 - Before servicing the unit, disconnect the Hydra 200 from the power source.
 - Do not store mixed chemicals. Use all of the chemical mixture immediately.
 - Do not adjust the Pressure Regulator Valve past its stop.

Introduction

The Dramm Hydra™ 200 is a hydraulic sprayer that offers a variety of flow rates with a variety of pressures to allow for maximum flexibility. The Hydra 200 can apply all formulations of chemicals including insecticides, fungicides, Insect growth regulators, plant growth regulators, and disinfectants. The Hydra can output all formulations without damage or corrosion to the pump.

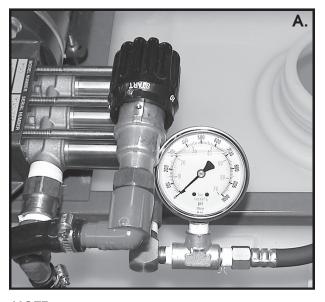
The Dramm Hydra 200 includes a 5.5 HP Honda gasoline motor and a close-coupled pump capable of 7 gpm output and 550psi. 200 gallon tank, with optional 20 gal tank for smaller areas, maneuverable cart, a convex reel with a separate lock and variable drag system, 150 – 300 feet of high pressure spray hose, and a variable pattern trigger spray gun.

Assembly & Preparation

Your 200 comes to you ready to spray. After removing the sprayer from the crate, check the tank for any additional parts and accessories. Connect the spray gun to the hose using the quick disconnect. Your machine is now ready for use.

START UP

- Either switch on the electric motor or Pullstart the Honda motor by setting the motor speed to fast & engaging the choke. for more on motor operation see the motor manual pg 15.
- Fill the sprayer to the desired level. <u>Do Not</u> operate the sprayer empty for more than a few seconds. The water acts as a coolant and lubricant for the pump and damage may occur.
- Start the sprayer with the pressure control knob in the START position. (A). <u>Do Not</u> attempt to start the sprayer under pressure as this will stall the motor and cause an overload condition.
- 4. After starting the sprayer allow it to run with the pressure control knob in the start position. This will remove any air from the system, which can harm the pump.
- Engine speed should not exceed 3,500 RPM. Maximum speed should be set using the adjusting screw located directly above the throttle lever of engine.



NOTE

- Always start and shutdown your sprayer with the pressure regulator in the START (priming) position.
- · Keep inlet filter clean.
- Always rinse the tank and flush the pump with clean water after each use.

Operation

SPRAY OPERATION

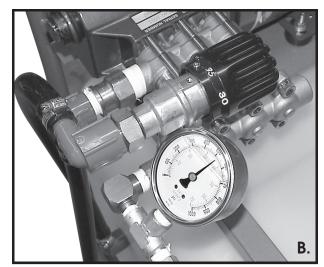
- After following the start up, to increase the spray pressure, turn the pressure control knob to the desired setting. (B) You may use any of these settings for spraying, as the unit will operate properly at all settings.
- 2. To begin spraying, pull the lever to the gun. A latch is provided to hold the level open to reduce operator fatigue. (C)

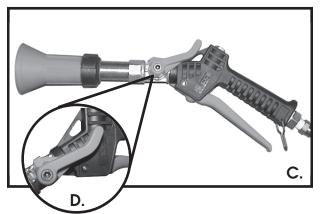
CAUTION: Do not direct the spray at yourself or others, as injury may occur. On higher pressure settings, the spray stream may cut or inject spray under your skin. Always wear proper personal protective gear when spraying.

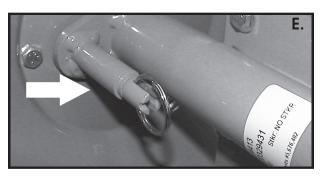
- 3. Spray Pattern: Adjustment of the spray pattern is made using the lever on the side of the gun. The pattern will adjust from a straight stream to a fine cone mist. (D)
- 4. Hose Reel: The Hydra MultiSpray comes standard with a variable drag lockable hose reel. The reel may be locked in position to prevent the hose from unwinding further than wanted. (E) The variable drag on the reel places variable tension on the reel to prevent freewheeling of the reel during unwinding. The drag has a lever to activate it. A nut allows for tension adjustment. (F)

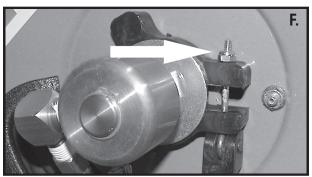
SHUT-DOWN

- 1. After spraying until the tank is empty, turn the unit off.
- 2. Add clear water to the tank. Start the machine and spray until empty flushing out the pump hose and gun.
- 3. Clean any residue from the unit.
- 4. Return the regulator to the **START** position.
- 5. Store the unit in a clean dry place.
- 6. <u>Do Not</u> allow the unit to freeze as any water left in the unit will expand and damage the machine.







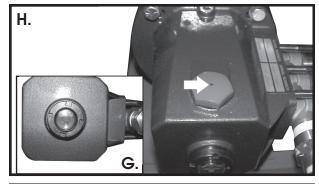


Chemical Mixing Procedure

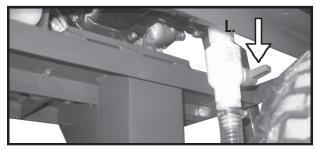
- 1. Fill the sprayer tank at least 3/4 full with water ONLY.
- 2. Dilute (mixing to dissolve) chemicals with water in a 5 gallon bucket. Never put concentrated chemical formulations directly into the tank without diluting with water.
- 3. Start sprayer with pressure regulator in **START** (priming) position to begin agitation process prior to adding chemical to sprayer tank.
- 4. Pour chemical and water mixture (slurry) into the sprayer tank, filled 3/4 full of water, after agitation has begun.
- 5. Fill remainder of sprayer tank with water.

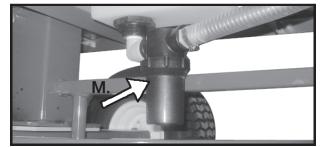
Maintenance & Cleaning

- Periodically check the pump oil level (G)
 If it is below the indication, add oil though
 the filler (H). Oil should be changed after
 the first 50 hours of operation. Use SC
 grade SAE10W-30 oil.
- Periodically lubricate the grease fittings on the wheels with a good grade of bearing grease to extend the wheel bearing life.
- Replace the spray gun tip every season.
 As the hole in the tip gets larger the spray pressure drops and degrades the quality of the spray. (K)
- 4. Thoroughly clean the in-line filter, tank and machine on a weekly basis.
- 5. To drain tank, rotate the drain valve (L.) 90° allowing flow from the drain hose. To completely drain tank, remove the lower housing of the in-line filter (M). *After draining, clean the filter, replace the housing and close the drain valve (L) to ensure that upon refilling the tank- the chemical will not drain out of the unit.

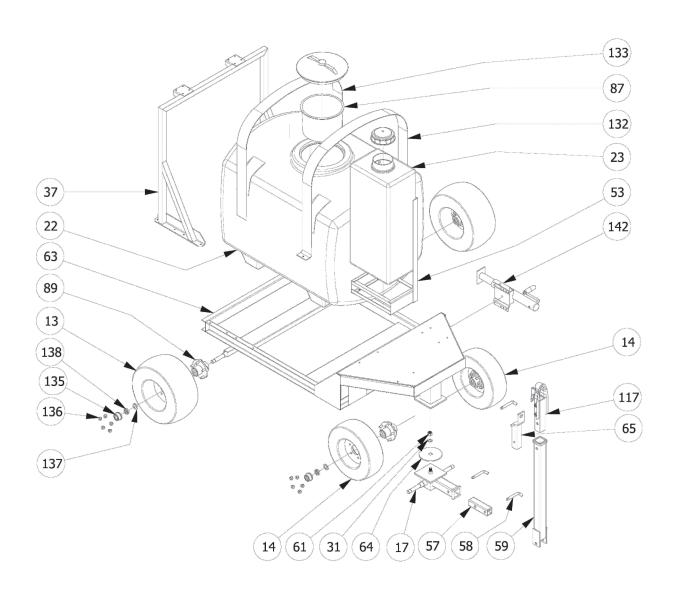








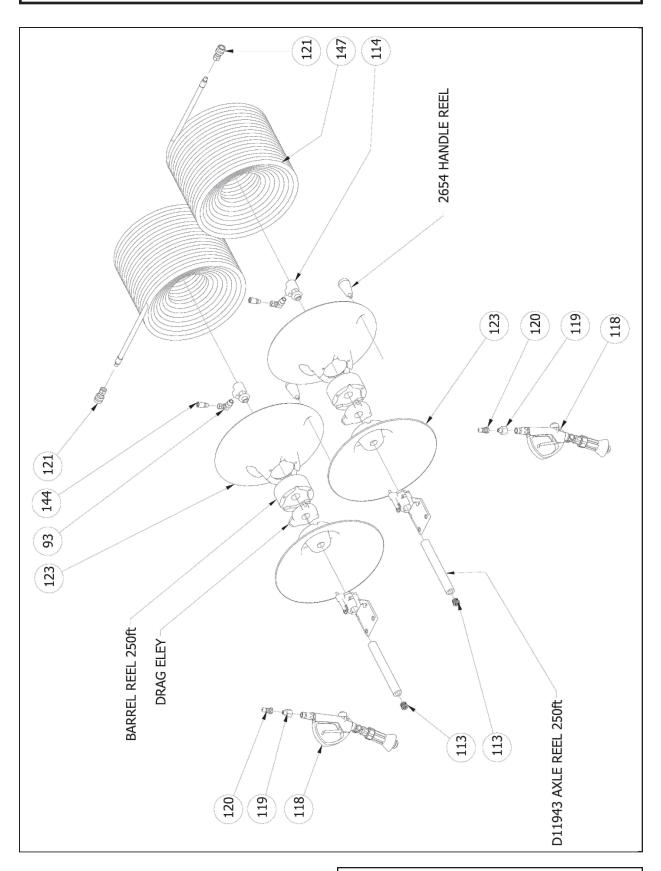
Hydra 200 Cart Assembly



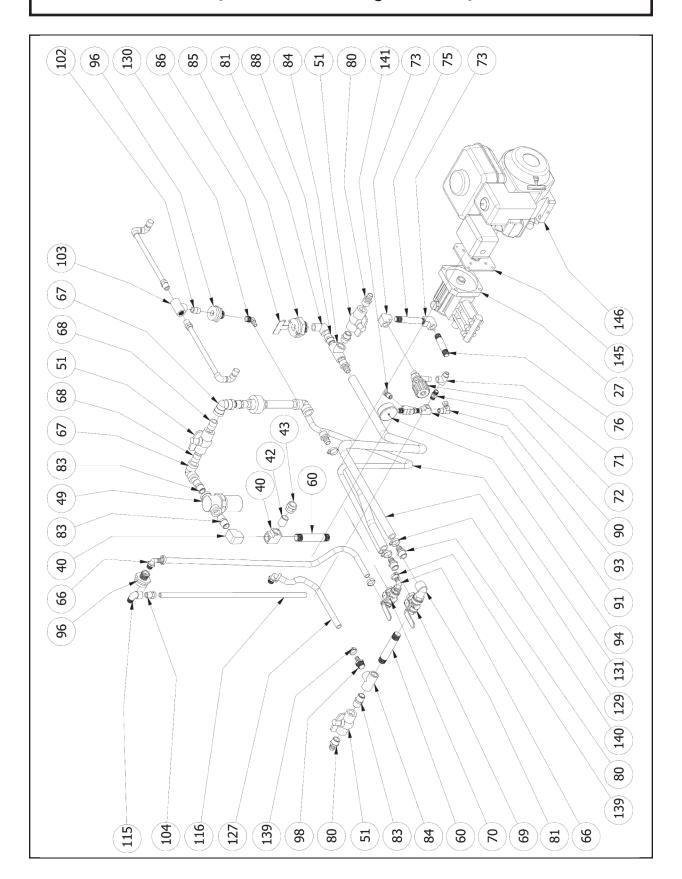
Hydra 200 Cart Assembly Parts List

	Part	s List	
ITEM	PART NUMBER	DESCRIPTION	QTY
13	12207	Tire & Wheel 18.5 x 8.9	2
14	12111	Tire & Wheel 16.5 x 4.8	2
17	D12007 SINGLE STEER	200G SINGLE STEER ASSM	1
22	PC0200 37S	TANK 200 GALLON W/SUMP	1
23	SP0020-OM 1	TANK 20 GALLON VERT	1
31	98017A220	WASHER FLAT 3/4	1
37	D12005	FRAME REEL BRACKET 200G	1
53	D12008A	TANK BRACKET 200G VERT	1
57	D12040	DRAW BAR EXTENSION	1
58	2507T51	RECEIVER HITCH PIN	3
59	D12039	Draw Bar Hydra 200G	1
61	90619A425	NUT 3/4-10 LOCK	1
63	D12006 Frame Single Front	FRAME HYDRA 200G	1
64	D12006 pivot bearing	PIVOY BEARING HYDRA 200G	1
65	2507T21	HYDRA 200G "OPTION"	1
87	10536	200G STRAINER BASKET	1
89	572051	HUB W/BEARINGS	4
95	10522	LID 20 Gallon	1
111	200G LID	LID 200G TANK	1
117	D12029	HITCH COUPLER ASSM 200G	1
132	PC0200 SBPS	TANK STRAP short	1
133	PC0200 SBPS cut	TANK STRAP CUT	1
135	572051 hub cap	BEARING CAP	4
136	572051 lug nut	LUG NUT	20
137	783931 Washer	WASHER BEARING	4
138	783931 Castel Nut	BEARING NUT	4
142	44064	SWIVEL JACK 1500	1

Hydra 200 Hose Reel Assembly



Hydra 200 Plumbing Assembly



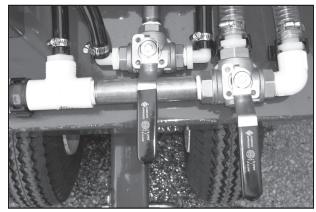
Hydra 200 Plumbing & Hose Reel Parts List

TIEM PART NUMBER DESCRIPTION QTY TIEM PART NUMBER DESCRIPTION 27 MSD41 EBOMS WHOREAR 1 93 220104 EBOWS WHORE 3/8 A LT/8 R 1 93 220104 EBOW SWHER 3/8 A LT/8 R 1 96 220500 GAGE 0-1000 PSI, 2 LT/2 SST 40 220050 BULHEAD FITTING 3/4PT R 1 98 5372K126 BABE 11/2 SST 34PT N 34PT N 28 220043 NIPPLE 2/12 SST 34PT N 34PT N 250000 NIPPLE ELOSE 11/2 CVC 25 220000 NIPPLE ELOSE 11/2 CVC 25 220000 NIPPLE ELOSE 11/2 CVC 22		Par	Parts List D12027 plumbing			Par	Parts List D12027 plumbing	
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542258 TEE MALE RUN 3/8 BR 1 120 220300 546849 UNLOADER VALVE HYDRA 1 121 220301 220100 ELBOW 1/2 NPT, BR 2 123 240004A 4568K179 NIPPLE 1/2NPT x 4 BR 1 127 20G suction 4568K177 NIPPLE 1/2NPT x 4 BR 1 128 20G suction 220700 UNION 3/4, PVC 1 129 Sucrition 200G 220701 UNIPPLE 3/4 x 4 1/2 SCH80 PVC 1 130 220201 220203 BARB 3/4 x 3/4MPT NY 6 131 AGITATION 200G 220108 ELBOW 3/4PT STREET PVC 2 134 200G suction 13 5 8203 NIPPLE HEX 3/4 PVC 4 139 220401 220501 BULHEAD FITTING 3/4FPT 1 141 22032 220004 HEX NIPPLE 3/4 NY 2 144 22052 220004 NIPPLE HEX 3/8 BR 2 145 046271 220603 TEE 3/8 NPT BR 2 145 050002 25	70	4093T23	Valve Diverter 1/2" BR		119	220055	ADAPTER 1/2PTF x 1/4PTM BR	2
546849 UNLOADER VALVE HYDRA 1 121 220301 220100 ELBOW 1/2 NPT, BR 2 123 240004A 4568K179 NIPPLE 1/2NPT x 5 BR 1 127 20G suction 4568K177 NIPPLE 1/2NPT x 4 BR 1 128 20G agitation 220700 UNION 3/4, PVC 1 129 SUCTION 200G 2207031 NIPPLE 3/4 X 4 1/2 SCH80 PVC 1 130 220201 2202033 BARB 3/4 x 3/4MPT NY 6 131 AGITATION 200G 220108 ELBOW 3/4PT STREET PVC 2 134 200G suction 13 5 8203 NIPPLE HEX 3/4 PVC 4 139 220401 220606 TEE 3/4 FPT PVC 2 140 220401 220501 BULHEAD FITTING 3/4FPT 1 141 220320 220004 HEX NIPPLE 3/4 NY 2 144 220551 220006 NIPPLE HEX 3/8 BR 2 145 450000 220003 TEE 3/8 NPT BR 1 147 250020 250	71	542258	TEE MALE RUN 3/8 BR		120	220300	QUICK DISC, MALE	2
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220203 BARB 3/4 x 3/4MPT NY 6 131 AGITATION 200G 220108 ELBOW 3/4PT STREET PVC 2 134 200G suction 13 5 8203 NIPPLE HEX 3/4 PVC 4 139 220401 220606 TEE 3/4 FPT PVC 2 140 220402 220501 BULHEAD FITTING 3/4FPT 1 141 220032 220004 HEX NIPPLE 3/4 NY 2 144 220551 220006 NIPPLE HEX 3/8 BR 2 145 200551 220603 TEE 3/8 NPT BR 2 145 646271 220001 BUSHINH HEX 3/8 x 1/4 BR 1 147 250002 250ft	79	220031	NIPPLE 3/4 X 4 1/2 SCH80 PVC	1	130	220201	BARB ELL 1/2 x 1/2MPT BR	1
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220606 TEE 3/4 FPT PVC 2 140 220402 220501 BULHEAD FITTING 3/4FPT 1 141 220032 D11305 ANTI-VORTEX 1 143 220200 220004 HEX NIPPLE 3/4 NY 2 144 220551 220006 NIPPLE HEX 3/8 BR 2 145 046271 220603 TEE 3/8 NPT BR 2 146 450000 220001 BUSHINH HEX 3/8 x 1/4 BR 1 147 250002 250ft	83	8203	NIPPLE HEX 3/4 PVC	4	139	220401	CLAMP, HOSE 5/16W -1 H	9
220501 BULHEAD FITTING 3/4FPT 1 141 220032 3 D11305 ANTI-VORTEX 1 143 220200 220004 HEX NIPPLE 3/4 NY 2 144 220551 220006 NIPPLE HEX 3/8 BR 2 145 046271 220603 TEE 3/8 NPT BR 2 146 450000 220001 BUSHINH HEX 3/8 x 1/4 BR 1 147 250002 250ft	84	220606	TEE 3/4 FPT PVC	7	140	220402	CLAMP HOSE 5/16W X 1-1/4H	က
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220004 HEX NIPPLE 3/4 NY 2 144 220551 220006 NIPPLE HEX 3/8 BR 2 145 046271 220603 TEE 3/8 NPT BR 2 146 450000 220001 BUSHINH HEX 3/8 x 1/4 BR 1 147 250002 250ft	98	D11305	ANTI-VORTEX	1	143	220200	BARB 3/8 x 1/4MPT, BR	4
220006 NIPPLE HEX 3/8 BR 2 145 046271 220603 TEE 3/8 NPT BR 2 146 450000 220001 BUSHINH HEX 3/8 x 1/4 BR 1 147 250002 250ft	88	220004		2	144	220551	FERRULE .675 BR	4
220603 TEE 3/8 NPT BR 2 146 450000 220001 BUSHINH HEX 3/8 x 1/4 BR 1 147 250002 250ft	90	220006		2	145	046271	FLANGE ADAPTER PUMP	1
220001 BUSHINH HEX 3/8 x 1/4 BR 147 250002 250ft	91	220603	TEE 3/8 NPT BR	2	146	450000	HONDA 5.5 HP ENGINE	1
	92	220001	BUSHINH HEX 3/8 x 1/4 BR	н	147	250002 250ft	PRESSURE LINE 3/8 - 250ft	2

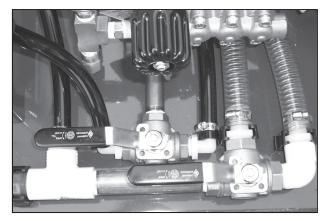
Hydra 200 OPTIONAL 20 gallon Tank Valve Operation

The HYDRA200G has the option of an extra, 20 gallon tank for smaller applications, or for use as a nurse stock tank for the larger tank.

Using the set of valves at the front of the unit, the operator can choose which tank is the source ans which tank is the bypass/agitation recipient. It is possible to draw solution from either tank and return the bypass to that same tank (for agitation) or to the other tank (for solution transfer), based on valve position.



Both valves turned to the FRONT will operate the small tank.



Both valves turned to the RIGHT will operate the large tank.

Hydra 200 Agitation System

Your HYDRA200G sprayer includes a hybrid agitation system that combines fluid recirculation with mechanical agitation. By employing optimally placed bypass return and nozzles, to increase motion in the tank, the Hydra will keep the most stubborn chemicals in suspension/solution.

Periodically check that these nozzles are not clogged and free of debris to ensure proper agitation.

Hydra 200 Brake Maintenance

INTENDED USE

This swivel jack with sturdy 21/4" tube is reliable and very easy to use. The sidewind internal gear design and large, grooved comfort handle makes cranking easy, while a deep-seated snap ring adds side load capacity. A durable 1/2" pull pin activates the swivel mechanism, allowing you to swing the jack up and out of the way when not in use.

OPERATION

To activate the swivel function on the jack, pull the pin and swivel jack into desired position.

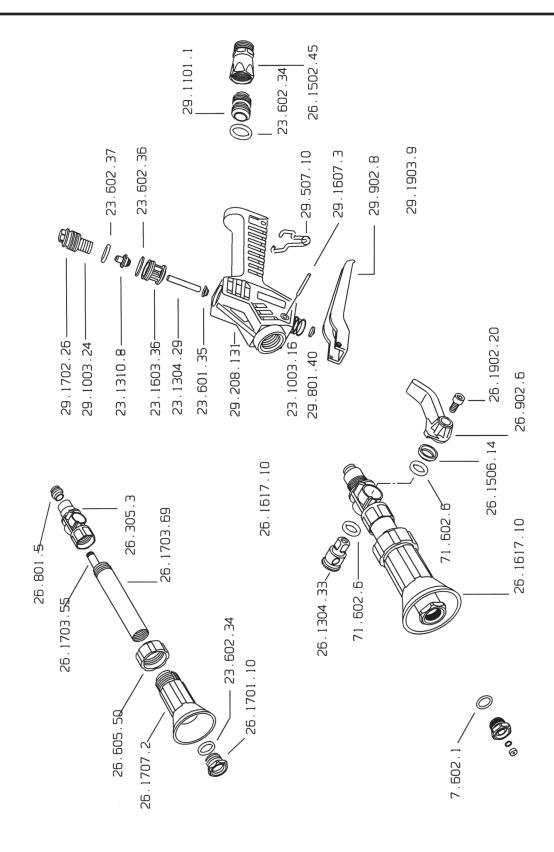
MAINTENANCE

- Maintain your Jack. It is recommended that the general condition of any jack be examined before it is used. Keep your jack in good repair by adopting a program of conscientious repair and maintenance. If jack is damaged, discontinue use of the jack.
- This jack is pre-greased for easy operation. This jack includes a grease zerk for easy lubrication as needed.

WARNING Swivel Bolt-On Jack

- This jack is designed for vertical
 Store idle jack. When jack is not in loading. Excessive side forces may cause failure and or injury.
- its lowest position.
- use, store it in a secure place out of the reach of children.
- Before moving trailer, crank jack to
 Inspect jack for good working condition prior to storage and before re-use.

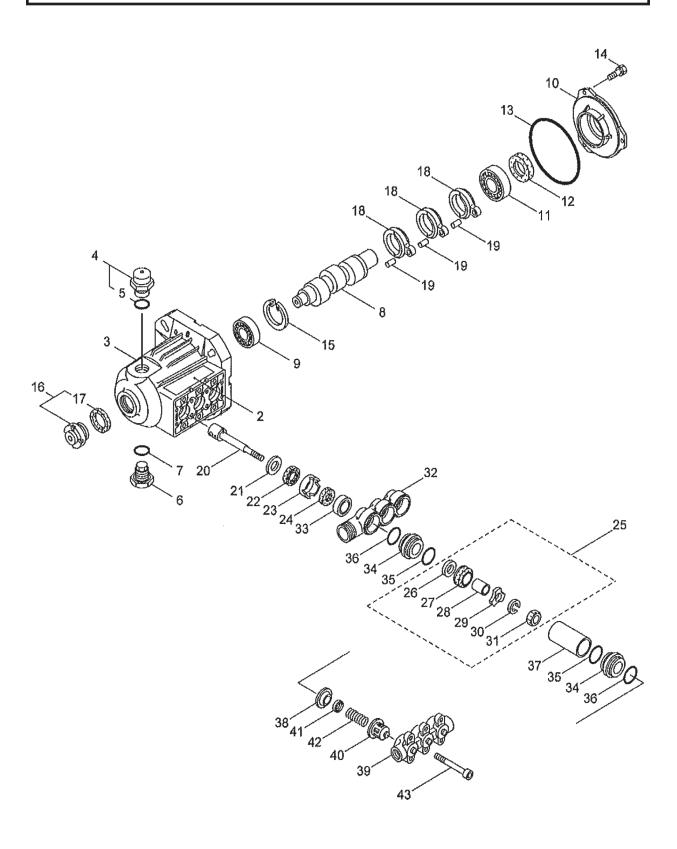
200 Spray Gun



Spray Gun Parts List Model MSO40

PART #	DESCRIPTION	QUANTITY
23.1003.16	Trigger Spring	1
23.1304.29	Push Pin	1
23.1310.8	Plug	1
23.1603.36	Flow Regulator Body	1
23.602.34	O-Ring	2
23.602.36	O-Ring	1
23.602.37	O-Ring	1
26.1304.33	Directional Switch	1
26.1506.14	Spacer	1
26.1617.10	Complete Flow Tube Assembly	1
26.1701.10	Nozzle	1
26.1703.55	Narrow Pattern Tube	1
26.1703.69	Flow Tube	1
26.1707.2	Spray Shield	1
26.1902.20	Screw	1
26.305.3	Spray Pattern Control Body	1
26.605.50	Wing Nut	1
26.801.5	Spacer	1
26.902.6	Spray Pattern Control Valve	1
29.1003.24	Spring	1
29.1101.1	Nipple	1
29.1607.3	Trigger Pin	1
29.1702.26	Plug	1
29.1903.9	Complete Trigger Valve Assembly	1
29.208.131	Valve Body	1
29.507.10	Trigger Locking Clip	1
29.801.40	Stopper	1
29.902.8	Trigger	1
71.602.6	O-Ring	1

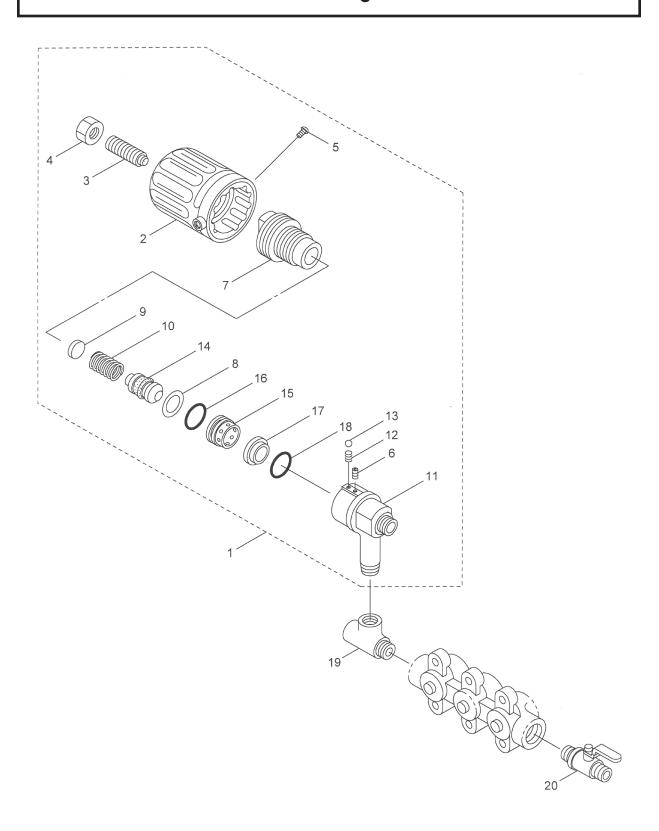
MSD41 Crank Case and Inlet Valve



Crank Case and Inlet Valve Parts List

REF#	PART #	DESCRIPTION	Q'TY,	Notes
2	548895	Label	1	MSD41
2 3	547333	Crankcase	1	
4	547961	Oil Filler Cap, Assy.	1	Incl.5
	014179	O-Ring	1	P20
5 6	044842	Plug	1	
7	014179	O-Ring	1	P20
8	545981	Crankshaft	1	7.0X19.07
9	015710	Bearing	1	#6204
10	547153	Bearing Case	.1	2SF
11	014488	Bearing	1	#6006
12	055337	Oil Seal	1	D30428
13	014041	O-Ring	11	S100
14	547161	Bolt	3	M6X14
15	012385	Snap Ring	1	
16	092241	Oil Gauge Assy	1	Incl.17
17	044428	Packing	1	25X34XT2
18	547046	Connecting Rod	3	2SF38MM
19	016948	Piston Pin	3	9X22
20	541809	Piston Rod	3	
21	020017	Washer	3	17X24XT1.2
22	025461	Oil Seal	3	S10.5247
23	044869	Seal Retainer	3	
24	011402	Oil Wick	3	10X19X5
25	639503	Inlet Valve Assy	3	Incl.26-31
26	014122	Inlet Valve Seat	3	6.1X20XT2.8
27	116121	Piston Packing	3	
28	027348	Spacer	3	6X8.5X10.5
29	119917	Piston Retainer	3	
30	015849	Spring Washer	3	M6
31	046365	Nut	3	M6
32	545944	Manifold A	1	
33	540670	U Packing	3	
34	546860	Adapter	.6	
35	015862	O-Ring	6	P21
36	023172	O-Ring	6	P22
37	541811	Cylinder Pipe	3	25X28.5XL43
38	044881	Valve Seat	3	
39	544499	Manifold B	1	
40	044565	Valve Sack	3	
41	548608	Valve	3	16X1.5
42	541062	Spring	3	0.6-15L
43	544090	Cap Screw	6	M8X110X28

MSO40E Pressure Regulator Valve



Pressure Regulator Valve Parts List

Ітем #	Part #	DESCRIPTION	QUANTITY	
2-1	546849	Pressure Regulator Valve	1	
2-2	540936	Grip	1	
2-3	088913	Cap Screw	1	
2-4	081039	Nut	1	
2-5	087483	Screw	2	
2-6	088912	Cap Screw	1	
2-7	106495	Guide	1	
2-8	106499	Washer	1	
2-9	541769	Retainer	1	
2-10	109298	Spring	1	
2-11	546500	Body	1	
2-12	107221	Spring	1	
2-13	106498	Ball	1	
2-14	543591	Piston Assembly	1	
2-15	103306	Sleeve	1	
2-16	019261	O-Ring	1	
2-17	543507	Valve Seat	1	
2-18	019261	O-Ring	1	
2-19	542258	Tee	1	
2-20	541796	Cock Assembly	1	

Troubleshooting

This power sprayer troubleshooting section shows how to diagnose and resolve problems that may occur in the course of normal operation. If you experience a problem, take the steps indicated for the applicable diagnosis. When you can't determine the cause of a problem or if you have any difficulty, please feel free to contact your nearest dealer or this company's sales office. Please have the following information ready: 1. Model designation 2. Serial number 3. Description of problem (What happened? What were you doing when it happened? What were the conditions when it happened?) For items marked with *, please request adjustment or repair from your nearest dealer or from this company's sales office.

WARNING: Do not change the setting of the screw that is under the cap on the top of the pressure regulator knob. This screw absolutely must not be changed, since that will raise the pressure above rated specifications, damage the machine, and possibly cause injury.

CAUSE	REMEDY
 Suction strainer is blocked with debris Suction hose is damaged or crooked Suction hose connector 	Clear and cleanRepair or replaceRepair or replace
gasket is bad Connection is bad	Connect properly
 Debris is stuck in inlet or discharge valve 	• Clean
assembled improperly	Assemble properly
damaged or worn	Repair or replaceReplace
damaged • Piston packing is damaged	ReplaceReplace
 Seal & packing are 	Replace
•	• Return lever to START position
lever in is RUN position • Pressure regulator is stuck	Disassemble & clean
 Insufficient liquid supplied to intake 	Diagnose under (1)
 Pressure regulator valve ball or valve seat damaged Pressure regulator valve rod is bad Pressure regulator valve spring bad Pressure regulator valve spring is damaged or weak 	ReplaceAdjust or replaceRepair or replaceReplace
	 Suction strainer is blocked with debris Suction hose is damaged or crooked Suction hose connector gasket is bad Connection is bad Debris is stuck in inlet or discharge valve Inlet or discharge valve is assembled improperly Inlet or discharge valve is damaged or worn Discharge valve spring is damaged Priston packing is damaged O-ring is damaged Seal & packing are damaged Pressure regulator valve lever in is RUN position Pressure regulator is stuck Insufficient liquid supplied to intake Pressure regulator valve ball or valve seat damaged Pressure regulator valve rod is bad Pressure regulator valve spring bad Pressure regulator valve

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Hydra 200 Sprayer Manual

Troubleshooting

Problem	CAUSE	REMEDY
 Pressure Falls When Spray Gun is Opened Nozzle 	Nozzle is wornNozzle sprays too much liquid	ReplaceReplace with suitable nozzle
-Power Spray	Intake liquid amount is too small	Diagnose under (1)
Sprayer Hose Vibrates	 Pressure regulator valve works poorly Faults in intake or pressure assemblies (stopped up, slack) 	Disassemble or adjustClean
• Noise	 Loose or worn key Conrod bolt or other bolt is loose Bearings are damage Pressure regulator valve is assembled wrong Air is being drawn in 	 Tighten or replace Tighten Replace Adjust Inspect
• Liquid or Oil Leak	 O-rings are damaged Seal & packing are damaged Oil seal is damaged Clamping or assembly are incorrect 	ReplaceReplaceReplaceDisassemble or adjust

Notes

Service

The warranty begins on the date of original purchase. The warranty is void if there is no proof of purchase or warranty registration on file. Mail the warranty registration card to the Dramm Corporation and keep the bill of sale or invoice. If warranty service is required, please include a written description of the equipment malfunction, a return address and telephone number. The Hydra 200, must be thoroughly cleaned of all chemical residue and sent prepaid to:

Hydra Sprayer Service c/o Dramm Corporation 2000 North 18th Street Manitowoc, WI 54220

> 800-258-0848 Fax: 920-684-4499



2000 North 18th Street P.O. Box 1960 Manitowoc, WI 54221-1960 USA dramm.com

920.684.0227 Order Fax: 920.684.4499 Parts & Service Fax: 920.684.0193

information@dramm.com

800-258-0848